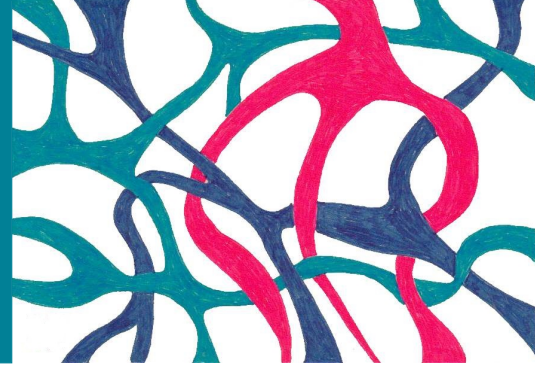


GenHET newsletter



Issue 06

March 2025



Prof. Rohini M. Godbole & women in science in India — special edition

Renowned Indian physicist Rohini M. Godbole (1952–2024) was not only a leading figure in particle phenomenology but also a tireless advocate for gender equity in science. She was widely recognized in India and globally, both within and beyond her field. This newsletter brings together the voices of two researchers who closely interacted with her, honoring her lasting impact.

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Prof. Rohini Godbole

Influential pioneer in particle physics and champion for women in science.

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Professor Rohini M. Godbole



Source: <https://imgodbole.in>

An influential pioneer in particle physics & a champion for women in science

Professor Rohini M. Godbole was an Indian theoretical physicist, known for her pioneering contributions to high-energy particle physics phenomenology, particularly in collider physics, focusing on top quark and Higgs physics.

Born in Pune in 1952, she obtained her BSc from the University of Pune, followed by an MSc from IIT Bombay, where she was awarded the Institute Silver Medal. She completed her PhD at Stony Brook University (SUNY) in 1979, after which she held research positions at the Tata Institute of Fundamental Research (TIFR) and the University of Bombay. In 1995, she joined the Indian Institute of Science (IISc) Bangalore, continuing her research at CHEP-IISc thereafter. She remained at IISc until her retirement in 2018, after which she continued her research at CHEP-IISc as an active emeritus professor. In addition to her work at IISc, Professor Godbole served as a Scientific Associate at CERN and held numerous visiting professorships at prestigious institutions worldwide.

She was a strong advocate for women in science, she co-edited influential books, including "Lilavati's Daughters" and "The Girl's Guide to a Life in Science."

Her achievements were recognised through numerous fellowships and awards, including the Padma Shri – the fourth-highest civilian award in India (2019), Ordre National du Mérite (France, 2021), Meghnad Saha Medal (2007), and S.N. Bose Medal (2008). She also received honorary doctorates from SNTD University, IIT Kanpur, and Shiv Nadar University.

Professor Godbole passed away on 25 October 2024. She leaves behind a legacy of scientific excellence, mentorship, and advocacy for women in science.

Centre for High Energy Physics
INDIAN INSTITUTE OF SCIENCE, BANGALURU, INDIA
Journeys in Particle Physics
Rohini M. Godbole Memorial Conference
March 13th – 15th, 2025

A brilliant researcher, A visionary leader
Champion of women in Science.

As a passionate advocate for women in science, she broke barriers and paved the way for future generations, leaving an indelible mark on the scientific community.
Prof. Rohini M. Godbole was everything a physicist could dream to be.

Conference Schedule:
13-03: Scientific Talks
14-03: Reminiscence - A day in Prof. Rohini's honour
15-03: Scientific Talks

Venue: New Physical Sciences Auditorium

Organizers:
Genevieve Belanger, Biplob Bhattacharjee, Fawzi Boudjema, Justin David, Xerxes Tata, Sudhir Vempati

A 3-day memorial conference took place from 13th to 15th March 2025, celebrating the life and work of Prof. Rohini M. Godbole. See:

<https://indico.global/event/8300>

An interview with Prof. Geneviève Bélanger



Could you introduce yourself and describe your career as a physicist? My name is Geneviève Bélanger. I am Canadian; I completed my undergraduate degree in Canada before pursuing my Master's and PhD at Johns Hopkins University. Afterwards, I worked as a researcher in Canada for a time before moving to France to join CNRS. I have been a researcher at LAPTh (Annecy-le-Vieux, France) for over 30 years. My area of expertise is theoretical particle physics.

Throughout my career, my primary focus has been on physics beyond the Standard Model—exploring potential new physics that extends our current understanding. For the past 20 years, my main research interest has been dark matter, specifically investigating what new particle(s) could explain its existence. Initially, I worked within the framework of supersymmetry. However, as the community recognized that supersymmetry might not provide the complete solution, our research broadened to include various other dark matter candidates and alternative production mechanisms in the early universe. We now explore a range of viable possibilities for dark matter.

How did you meet Professor Rohini Godbole?

We first met at a linear collider conference in Hawaii. For over 30 years, the community has been gathering to prepare for the development of the linear collider, which is still a future project. Professor Godbole has played a key role in organizing efforts for this new collider.

She held significant positions on committees that facilitated contributions from physicists around the

world. Over time, we continued to meet at similar conferences and eventually began collaborating.

There is an Indo-French Institute that sponsors research projects involving teams of researchers from both India and France over a four-year span. Over the years, we participated in four such projects—sometimes as leaders, sometimes as participants. Through this collaboration, we developed a strong professional relationship.

Higgs boson, dark matter and supersymmetry

What was Prof. Godbole's main research focus?

Rohini's career was dedicated to studying the fundamental constituents of matter and their interactions. She completed her PhD before the Standard Model was fully established, during a time of rapid discovery in particle physics. New particles, such as the charm quark, bottom quark, and top quark, were being identified. The discoveries of the W and Z bosons in the early 1980s, followed by the top quark, and ultimately the Higgs boson, significantly shaped the field.

Her work spanned multiple areas, from theoretical calculations within the Standard Model to predictions for physics beyond it, particularly in terms of their impact on observable phenomena in colliders. She was deeply involved in Higgs boson research even before its discovery, posing fundamental questions such as: Will the Higgs behave as expected? If not, how should we adjust our search strategies? She made critical contributions to this field.

After the Higgs was discovered, she shifted her focus to using it as a probe to investigate physics beyond the Standard Model. As an expert in supersymmetry, she authored a highly regarded book in the field. Unlike many others that focused solely on theoretical aspects, hers included detailed discussions of phenomenological implications—effectively bridging theory with real-world experimental predictions.

One of her most notable contributions was in photon physics, where she identified an important effect now named after her—the Drees-Godbole effect. This effect reveals that in high-energy collisions, photons can behave like hadrons through their interactions, significantly impacting predictions for collider experi-



ments.

Rohini also played a crucial role in various workshops and working groups that brought together theorists and experimentalists. These gatherings provided an opportunity for researchers to collaborate intensively on specific topics.

For example, some of these workshops took place in Les Houches, where we would spend three weeks working closely with both theorists and experimentalists. At the end of the session, we would produce reports and contribute to advancements in the field. Rohini was always highly engaged in these meetings. She had a remarkable ability to pinpoint core issues and ask the right questions. She was extremely active in these workshops. In fact, she also initiated similar programs in India, such as the WHEPP (Workshop on High Energy Physics Phenomenology). I attended a couple of these as well. The idea was the same: bringing people together in one place for at least a week to focus on collaborative research. Rohini was exceptional at engaging both experimentalists and theorists effectively. Whenever I needed to speak with an experimentalist, I would often consult her first.

┌ Rohini also played a crucial role in various workshops and working groups that brought together theorists and experimentalists. └

Can you tell us more about your collaborative work with Godbole? We began collaborating before the discovery of the Higgs boson, with a primary focus on supersymmetry. One of our main concerns was how supersymmetry might influence Higgs boson signals. In some models, the Higgs could decay invisibly into dark matter particles, leaving no direct signature in collider experiments.

We conducted several studies to identify which models could lead to such scenarios and explored alternative methods to confirm the Higgs' existence. One strategy was to investigate associated production processes that might provide indirect evidence, even if the Higgs itself remained undetectable.

After the Higgs boson was discovered, our research shifted to exploring how precise measurements of the Higgs could offer insights into dark matter. Initially, we worked within the supersymmetry framework, but

over time, we expanded our focus to include other extensions of the Standard Model that could accommodate potential dark matter candidates. Our most recent collaborations have centered around models involving dark matter and strategies to test them at colliders, either through the Higgs or other mechanisms.

Advocating for gender equity in physics

What was Godbole's perspective on advancing gender equity in physics? We discussed this topic informally quite often, though I don't have a full overview of everything she did in this area—I can only offer partial insights.

Her approach to addressing gender issues was never confrontational. She was always gentle and thoughtful in how she approached these topics. If you've seen her book *Lilavati's Daughters*, you'll see this reflected in her perspective. Her approach was simply to highlight the stories of women who made significant contributions to science, letting them share their own experiences and discuss how they navigated their careers. In doing so, she helped ensure that many women, who might have otherwise been forgotten, were recognized and could serve as role models for future generations.

She took many small but impactful steps. She served on numerous committees in India that made decisions about grants, invitations, awards, and other recognitions. She often told me how women were frequently overlooked in these processes. Instead of calling out the bias directly, her method was to raise her hand and ask, "Have you considered this person? Or that person?" She actively pushed for deserving women to be recognized at the right moments in their careers. That was her way of doing things, at least as I saw it.

In June, she visited us, and volunteered to give a talk on women in science. A large audience attended, and she spoke for nearly an hour and a half, fielding a multitude of questions with incredible passion.

Her talk focused heavily on the situation of women in India, where the challenges differ from those in other countries. India has a relatively high number of women in science at the undergraduate and early career levels. However, the numbers drop significantly as one progresses in academia. In Europe, in comparison, there are already very few women at the



undergraduate level.

We've discussed this discrepancy many times, and I've never fully understood why it's so different; why, for example, there seems to be no issue in India with women pursuing PhDs in physics.

Her approach was to highlight the stories of women who made significant contributions to science.

What impact did Godbole have on gender equality, and what were her key contributions?

She certainly highlighted the issues, that much is clear. She also personally influenced many young women. As for the broader impact, I simply don't have the perspective to measure it.

Beyond the books she edited, she was always actively engaged with the community. She didn't work in isolation—she was constantly traveling, giving talks, and raising awareness about these issues. This took a lot of energy, but it was also how she made a real impact. She also served on various committees, helping select award recipients.

What do you think are the most promising ways to improve gender equality in the field?

I've discussed this with Rohini many times, and I'm still stuck on the fundamental issue: How do we encourage young girls to study science?

I belong to the older generation, where the idea of improving gender equality seemed almost hopeless. We didn't even think about it—we were just focused on survival.

Many people say they want equality, but they don't realize it won't happen on its own. That's why mentorship is so crucial. I have young colleagues that take high school students as short-term interns, I think it's important for young students to see women succeeding in science. It helps them envision themselves in similar roles. Initiatives like this should be more widespread.

I've also worked extensively with young Indian researchers, including many women. I believe this kind of support helps in the long run, but these are still isolated initiatives.

Pointing out the issues—like Rohini has been doing—is essential. Many people don't realize why their environment is unwelcoming to women. It's often small things, but those small things add up to real barriers.

For example, I was on the CNRS (France) recruitment committee for a while. We made sure that the proportion of women recruited matched the proportion of female applicants. But the problem is that women made up only 14% of applicants. If there were five or six open positions, we'd hire one woman. Some years, it was more, but this is not enough to make real progress.

Apart from how young people perceive research, another major issue is career timing. The years when researchers are expected to make their biggest contributions coincide with the time when many women are starting families. It's simply impossible to balance both fully. This issue affects some men too, but it disproportionately affects women. In many cases, women carry the majority of family responsibilities. Of course, how this plays out depends on the country and the system. I'm very familiar with the situation in France, but it may be different elsewhere.

Something I've noticed, though I can't say for sure if it's statistically relevant, is that a significant number of women in science, including Rohini and I, attended all-girls schools. In an all-girls environment, you're not raised with the idea that math is "not for women" because, by default, the best student in math has to be a girl. So from the very beginning, you don't internalize the stereotype that math and science are male domains. I'm convinced this has an impact, even if I cannot quantify it.

When I was about 15, my mother gave me a biography of Marie Curie to read, and I'm certain it had an impact on me. Books like Rohini's, which share the stories of women scientists, can have the same effect.

Rohini Godbole's books on Indian women in science

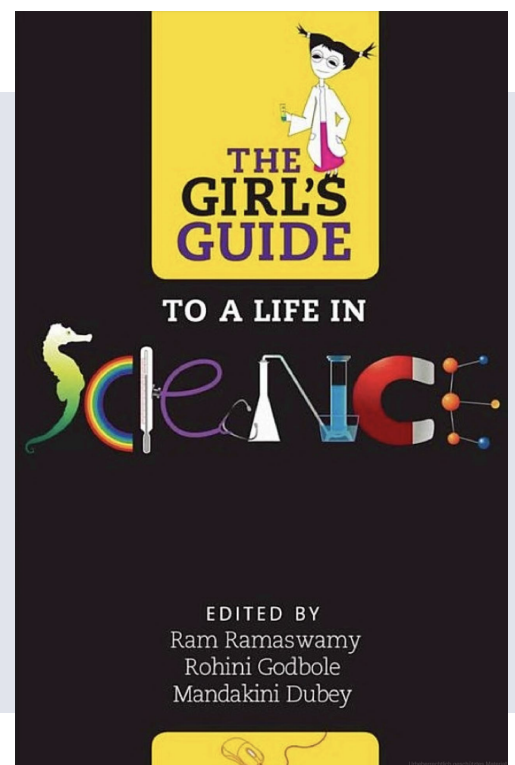


Lilavati's Daughters

is a collection of nearly one hundred biographical and autobiographical essays highlighting the contributions of Indian women scientists across various disciplines. Edited by Rohini Godbole and Ram Ramaswamy, the book was published by the Indian Academy of Sciences in 2008. The essays delve into the personal and professional journeys of these scientists, exploring their motivations, challenges, and achievements. The title pays homage to the 12th-century mathematician Bhāskara II's treatise "Lilavati," named after his daughter, symbolising the rich legacy of women in Indian science.

The Girl's Guide to a Life in Science

is a collection of essays featuring twenty-five of India's prominent female scientists, spanning disciplines from astrophysics to zoology. Edited by Ram Ramaswamy, Rohini Godbole, and Mandakini Dubey, the book aims to inspire young readers by sharing the personal and professional journeys of these scientists, including their motivations, challenges, and key research questions. Each profile is accompanied by a "Know-it-ology" section, providing a brief introduction to the scientist's field of research. This compilation serves as a condensed version of "Lilavati's Daughters," tailored to a younger audience.



An interview with Dr. Abhiram Kaushik



From left to right: Gaurav Mendiratta, Rohini Godbole, Pritibhajan Byakti and Abhiram Kaushik.

Can you present yourself and your research?

I'm currently a postdoc at the University of Jyväskylä in Finland. My research focuses on low-x physics, including gluon saturation and some aspects of spin physics, such as single-spin asymmetries studied at COMPASS. I also work on aspects of these topics relevant to the planned Electron-Ion Collider

I completed my PhD in 2018 under the supervision of Rohini Godbole at the Indian Institute of Science (IISc, Bangalore). I was, I believe, her penultimate student, and during my PhD, we worked on transverse momentum-dependent PDFs.

The mentor and the teacher

As PhD student of Professor Godbole, how did her mentorship influence your academic and professional trajectory? One of the things I have to say about working with Professor Godbole as a PhD student was the emphasis on independence. She expected you to figure things out for yourself, partly because she was very busy with various commitments, but also because her mentoring style was built around encouraging self-reliance and critical thinking. More than just the physics itself, she focused on teaching you how to think, how to approach a problem, and how to write effectively.

If you were in a discussion with her and your language was imprecise, she would stop the conversation and make you rethink your framing. She would ask

why you were phrasing something a certain way, forcing you to think deeper about the problem. In many cases, that process itself led you to the answer.

Her mentorship wasn't the typical style where you spend hours at the blackboard discussing physics. Instead, she would direct you to references, show you how to use tools like INSPIRE-HEP, and push you to work through things on your own.


She was also extremely precise in her writing. When working on papers, for example, I couldn't simply say, "Based on considerations of gauge invariance, it can be shown..."—everything had to be explicitly spelled out. Her philosophy was that if a PhD or master's student were reading the paper, they should be able to work through the details themselves. The writing had to be clear, simple, and accessible. Of course, some level of jargon was unavoidable, but she insisted that it should never obscure the core ideas.

That emphasis on clarity has been one of the most valuable lessons I took from her. Even now, if I don't fully understand something, I write it down as clearly as possible—that process helps me grasp the topic more thoroughly.

「If you were in a discussion with [Prof. Rohini] and your language was imprecise, she would stop the conversation and make you rethink your framing.」

How much was teaching a central part of Godbole's scientific identity? Besides being an outstanding scientist, she was very much a teacher at heart. She was a fantastic lecturer, and her talks—whether technical or more general science popularization lectures—were electrifying. She inspired many people, especially women, to pursue careers in science. She always made a conscious effort to put things in perspective and carefully considered how she presented her ideas, whether in presentation slides or when putting something on arXiv. She also designed interesting problems for students to work through, fostering deeper understanding.

When I first joined graduate school, I intended to pursue astrophysics. But after taking Quantum



Mechanics II with Rohini, I was convinced to shift to particle physics.

Her enthusiasm was infectious, and that energy, that sheer excitement about physics, was a big reason I decided to pursue particle physics.

What do you think was her most significant contribution to particle physics? She made significant contributions to physics beyond the Standard Model, particularly in Higgs and top quark production, various observables, and the implications of different BSM models, including supersymmetric frameworks for Higgs and top production. Before that, she also did important work on aspects of QCD.

One notable contribution, in collaboration with Manuel Drees, was identifying a key effect in electron-positron colliders. Depending on the collider's architecture, hadron production backgrounds from Bremsstrahlung photons must be taken into account.

At an $e^+ - e^-$ collision point, a photon flux can be present, leading to hadron production. Rohini and Drees highlighted the importance of considering this effect. Later calculations showed that the background was not as severe as initially thought, but it remained a crucial factor. I believe there was also a paper by Peskin that examined this further and proposed strategies to mitigate its impact. This was yet another area where she made significant contributions.

Women and science in India

What was her advocacy for gender equality in India? She served on numerous panels and committees focused on improving access for women in science in India. Most notably, the Indian National Science Academy (INSA) commissioned a committee to produce a report analyzing various aspects of this issue.

One of the key findings was that while women in India pursued science at similar rates through high school, college, and master's programs, retention dropped sharply at higher career stages. The dropout rate increased significantly at the PhD, postdoc, and tenure-track levels. The committee inter-

viewed women to understand the reasons behind this trend and proposed recommendations tailored to the Indian context.


Much of the issue stemmed from the challenge of balancing personal and professional responsibilities. India remains a largely conservative society, and factors such as limited access to childcare, difficulties in securing academic positions for both spouses, and broader systemic barriers made it harder for women to stay in research careers.

Interestingly, in conversations with European colleagues, I learned that this trend differs in Europe, where the gender gap appears earlier, at the undergraduate level. In India, representation remains fairly balanced through high school and undergraduate studies. The challenges arise later, when academia demands long-term career commitments—often requiring extended time abroad.

Do you think this socioeconomic situation in India has changed in the last 20 years? I would say things are still quite static. There have been more efforts in research-focused institutions to make balancing family life and career easier. The burden of family responsibilities still falls more on women than on men in Indian society. In specialized research institutes, there are efforts to help, but in universities, things remain largely the same.

Is there any other initiative that you know that Professor Godbole did, that you think was very influential regarding promoting a science career for women in India? Yes, definitely. She co-edited two books with Ram Ramaswamy. The first, *Lilavati's Daughters*, is a collection of biographies and brief autobiographies of women scientists in India. It includes historical figures like E. Janaki Ammal, a pioneering botanist who worked abroad and was one of India's earliest women scientists. The second book, *The Girl's Guide to a Life in Science*, is a shorter collection featuring autobiographical notes from contemporary scientists—including Rohini herself—who were working in various institutes across India. Both books have been quite popular, and I believe they have inspired many young girls to pursue careers in science. [See page 6 for a short overview of these books, ed.]

Beyond these publications, Rohini was also an active public speaker. She gave numerous lectures on



both technical and non-technical topics and was deeply committed to increasing the representation of women in our department and in science more broadly.

Did this commitment to promoting and supporting female scientists also manifest in her interactions with students, during lectures, or in her relationships with colleagues? Yes, in some ways. For example, when I was at the Center for High Energy Physics, if a female student joined the department, Rohini made a point of reaching out. She would check in, talk to them, and make it clear that she was available if they ever needed help or support.

She also collaborated with many young graduate students, but as far as I know, she never directly supervised a female PhD student. However, she always ensured that women in the department knew they could turn to her for guidance or if they encountered any issues.

That said, when it came to her professional approach, I don't think she treated male and female students any differently. She upheld the same high standards of academic rigor and expectations for everyone.

Her sincerity and commitment

Are there any other lessons you learned from her—either about how she taught or how she approached science—that you've carried with you in your own work? One thing that stood out about her was her sincerity in everything she did. She was incredibly busy, so if she said she might do something, there were times she couldn't get to it right away. But when she did, she gave it her full attention.

Whether it was writing a report, cross-checking work, or any other engagement, she was always thorough and dedicated. She also kept herself constantly informed about developments in the field and fully committed to every responsibility she took on.

She never gave cursory feedback. If you asked for her thoughts on a draft, she might not always have time to review it immediately, but when she did, her comments were incredibly thorough.

As a PhD student, I saw firsthand how dedicated she was to mentoring. At one point, she was supervising four other PhD students simultaneously—it was

kind of insane. As I mentioned earlier, we didn't spend as much time at the blackboard discussing physics with her as we might have liked, but that wasn't really her style.

However, when it came to other challenges—whether navigating bureaucracy or dealing with non-academic hurdles—she always had our backs. She took her role in guiding students through their PhDs very seriously.

She co-edited two books, 'Lilavati's Daughters' and 'The Girl's Guide to a Life in Science', both of which have inspired many young girls to pursue careers in science.

Is there a particular anecdote from your interactions with Professor Godbole that really stood out to you? Her demeanor in lectures really stuck with me. She would get so excited while teaching—literally jumping around while explaining concepts like scattering and angular decomposition. Her enthusiasm was infectious, and that energy, that sheer excitement about physics, was a big reason I decided to pursue particle physics.

It made such an impression on me that I eventually asked her if she had room to take on another PhD student. Just being in a room with her, you could feel her passion for science—it was absolutely contagious. Her enthusiasm for science wasn't just inspiring; it was impossible to ignore. She was incredibly driven.

Being a female Physics professor in India must have posed many challenges at times... Yeah, and that's probably part of why she was so tough. People were intimidated by her—not so much the students or colleagues, but the university bureaucrats. She might have developed that toughness because of her earlier experiences. I don't want to speculate too much, but it's possible that played a role. You need that kind of resilience to break through the glass ceiling.

Hopefully, things aren't as difficult now as they were when she started. When she decided to pursue her PhD in the United States in the 1970s, it was incredibly uncommon for a woman to go abroad and



pursue something as abstract as particle physics—that was almost unheard of for an Indian family at the time. But her family was very supportive, which made a huge difference.

Back then, societal expectations and attitudes were much more challenging. After returning from Stony Brook, she spent some time at the Tata Institute of Fundamental Research (TIFR), which is a dedicated research institute. But then, she chose to join a university in Mumbai, where she took on significantly more teaching responsibilities.

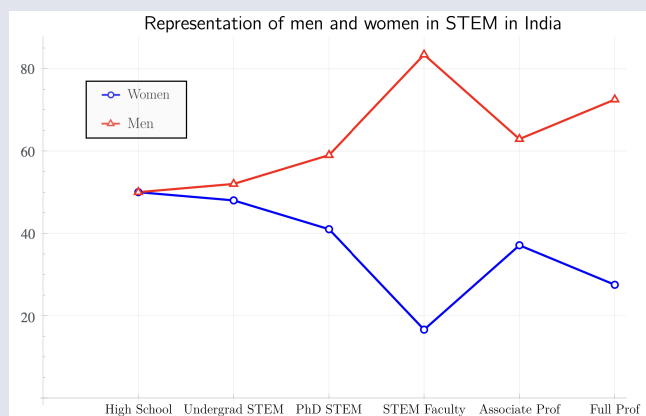
At one point, she had a conversation with someone who suggested, 'Why don't you just find a position at a college? A research career isn't going to suit you.' By that time, she already had a strong publication record with high-impact papers. That interaction might have played a role in pushing her to join the Indian Institute of Science (IISc). I'm not entirely sure, but she did mention having one or two interactions that really rubbed her the wrong way. Once she was at IISc, though, I don't think anyone questioned her place anymore.

The Newsletter continues on the next page with data about Women in Science in India.

Women in science in India: some numbers

Prof. Rohini Godbole's contributions to both physics and gender equity in science have been deeply influential. Among her many efforts, she co-authored several important reports on women in science in India, highlighting both progress and persistent challenges.

A particularly central and important report is the 2004 INSA report, "Science Careers for Indian Women: An Examination of Indian Women's Access to and Retention in Scientific Careers". Drawing from this and other sources, key statistics below illustrate the state of women in Indian science and academia. These numbers offer a snapshot—if necessarily incomplete—of the hurdles faced by women in the field, from underrepresentation and systemic barriers to the progress being made toward greater inclusivity.



Women in India's academia

The data on female representation in STEM and academia in India highlights a significant drop as women progress through academic and professional stages. While ~43% of STEM graduates are women, their numbers decline sharply in research and faculty roles, with only ~16.6% of STEM faculty and just ~9.2% in engineering faculties. The disparity continues at senior academic levels, where only ~27.5% of full professors are women. Note the numbers are prone to fluctuations.

Data compiled from : <https://www.hercircle.in/engage/get-inspired/trending/gender-in-sciences-just-16-of-stem-faculty-in-india-comprises-women-6187.html>
See also References and resources at the end of the next page.

Factors influencing science careers for Indian women [1–4]

Socioeconomic barriers

- ▶ Family prioritises investment in sons' education
- ▶ Societal expectations push women away from "hard" sciences
- ▶ Science degree seen as a marriage asset rather than a career path

Gender bias

- ▶ Nepotism and bias in selection committees prevent women from advancing in academia
- ▶ Gendered work culture excludes women from decision-making bodies

Work-life imbalance

- ▶ Insufficient childcare, struggle with familial responsibilities
- ▶ Policies often prohibit spouses from working in the same institution, disproportionately affecting women

Sexual Harassment

- ▶ Affects productivity, limits women's mobility and career growth

Limited mentorship and visibility

- ▶ Women lack access to professional networks and recognition through awards and grants

Recommended measures and change in policies

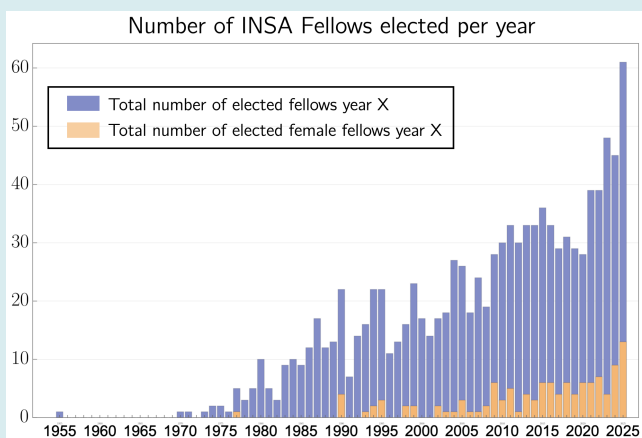
Selection of recommendations [1–4] towards improving the status of women in science in India.

- ▶ **Policy measures:** Gender audits, transparent hiring, and leadership roles for women
- ▶ **Flexible work policies:** Childcare, dual-career support, and flexible hours
- ▶ **Recognition:** Awards, grants, and networking for women scientists
- ▶ **Mentorship programs:** Workshops and guidance to help women stay and/or return to science
- ▶ **Stronger action against harassment:** Effective grievance redressal mechanisms

Gender disparity in awarded INSA Fellows

The Indian National Science Academy (INSA) is a leading institution in India that recognises excellence in scientific research. Election as an INSA Fellow is a prestigious honour, acknowledging significant contributions to science while also influencing policy and research.

Female representation among INSA Fellows remains low. In 2021, women made up only 10% of the total, with 90 out of 944 Fellows. Of these, 59% were elected after 2010, but only 14% before age 50, compared to 35% of men. The average election age for women was 55, slightly above 52 for men, reflecting persistent gender disparities in the academy.



Note that the data is exclusively for Indian fellows. The data was collected from https://www.insaindia.res.in/pdf/ws_data.pdf and <https://insajournal.in/intranetinsa/graphs.php>

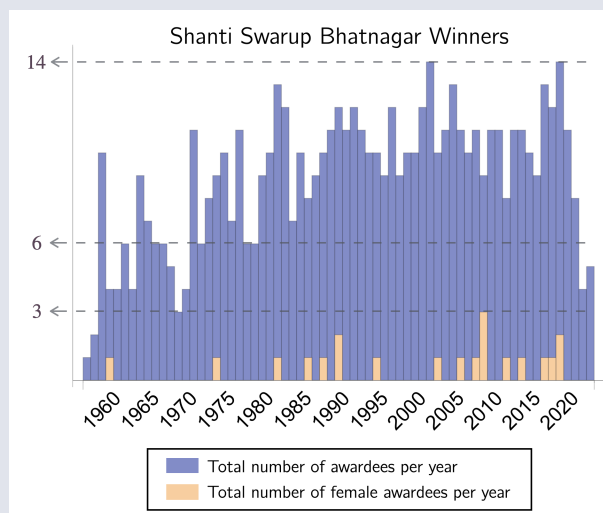
The Shanti Swarup Bhatnagar Prize

The Shanti Swarup Bhatnagar Prize for Science and Technology*, instituted in 1958 by the Council of Scientific and Industrial Research (CSIR), was one of India's most prestigious awards, recognising outstanding research in various scientific disciplines. Historically, female representation among Shanti Swarup Bhatnagar Prize recipients has been notably low. Since its inception, only 19 out of 583 awardees have been women, accounting for slightly over 3% of the total.

* In 2024, the Indian government restructured its national science awards, introducing the Rashtriya Vigyan Puraskar, which encompasses several categories, including the Vigyan Yuva-Shanti Swarup Bhatnagar Award for scientists under 45.

Data compiled from :

https://en.wikipedia.org/wiki/List_of_Shanti_Swarup_Bhatnagar_Prize_recipients
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EDI at Strings 2025

From an exchange with Mariana Graña, one of the organizers.

Could you describe the efforts made by the Strings 2025 organizers to support student participation? We provided 100 fellowships for PhD students and postdocs, covering airfare, accommodation, and waiving the conference fee. These were awarded by a selection committee from around 300 applications, with EDI considerations playing a key role in the selection process.

What other EDI initiatives were implemented at Strings 2025? We prioritized geographic and gender diversity when selecting speakers, and an EDI representative (myself) was part of the organizing committee—though all members were proactive in this regard. A code of conduct was in place, and participants were encouraged to report concerns to organizers or the NYU Abu Dhabi EDI office. Additionally, in collaboration with Physics Dean Marta Losada, we reached out to GenHET and WomenHET mailing lists to encourage women’s participation.

Looking back, how would you evaluate the conference overall, particularly in terms of the success of these EDI initiatives? The conference was very well received, with positive feedback on both geographic and thematic diversity.

What key takeaways or advice would you offer to the organizers of Strings 2026 and future editions? It’s crucial to consider diversity at every stage, from speaker selection to supporting young and underrepresented participants. Having an EDI lead in the organizing team ensures accountability. A code of conduct is essential, and a useful addition would be to require participants to explicitly acknowledge it during registration to enhance awareness.

Survey on gender-based and sexual violence in doctorals studies

The Observatory on Gender-Based and Sexual Violence in Higher Education has published a new thematic survey: “Pressures, Silence, and Resistance: A Study on Gender-Based and Sexual Violence and Discrimination in the Doctoral Environment in France.”

Based on testimonies from nearly 2100 doctoral students, the report highlights the pervasiveness and severity of these issues within academia. It follows previous work, including the “2023 Barometer”, and aims to:

- Quantify the prevalence of gender-based and sexual violence (GBSV) and discrimination in doctoral studies,
- Analyze the impact of these experiences on victims’ academic trajectories,
- Evaluate existing support structures and policies,
- Propose recommendations to strengthen gender equality and prevent violence.

Nearly 52% of the surveyed PhD students consider that the PhD years are a particularly vulnerable period for sexual and gender-based violence. 25% of them report having experienced or witnessed violence, harassment or discrimination in laboratories and research institutes. Among the women who responded to the survey, 7% said they had been sexually assaulted while taking part in a conference. Despite this situation, institutional responses are inadequate. Only 30% of interviewees feel well-informed about their institute’s prevention and reporting mechanisms, and 67% of conference assault victims have not reported any incidents. Among the key recommendations, the authors mention the need to develop ethical charters and procedures for reporting gender-based and sexual violence, and to communicate on the support available to victims. They also recommend raising doctoral students’ awareness and training thesis supervisors on a regular and compulsory basis. The full report (in French only) is available at <https://observatoire-vss.com/enquete-doctorat-2024>.



IDWGS and International Women's Day

February 11th, 2025, was the 10th anniversary of the International Day for Women and Girls in Science. Many institutes have organized events to celebrate women in science and to spread awareness among the younger students of the joy of being a scientists. Here are some exciting events, if you know of other events that you would like to bring to our attention, don't hesitate to write to us and we'll collect all of them on the GenHET website!

- Events in Italy under the INFN umbrella:
<https://l.infn.it/1dw>
- UNESCO organized the event *Unpacking STEM Careers: Her Voice in Science*
<https://indico.un.org/event/1015641/>. This events stemmed from the UNESCO Call to Action to Close the Gender Gap in Science
<https://www.unesco.org/en/science-technology-and-innovation/cta>, and included the screening of the movie *Women of Science*, by Safia Kessas
<https://www.iotaproduction.be/en/film/women-of-science/>
- Videos celebrating Women in Science at MPI for Physics → [link](#) and at INFN
<https://www.youtube.com/watch?v=yGcsbKK13k4>
- "Sciences, un métier de femmes" (Science, a woman's profession) at ENS de Lyon (France)
<https://www.ens-lyon.fr/savoirs/culture-sciences-et-societe/grands-evenements/sciences-un-metier-de-femmes>

Upcoming and recent events around EDI

- "10th Interdisciplinary Symposium for Women in STEM Fields", 02. - 03. April 2025, Chemnitz University of Technology
- "Women in Mathematical Physics 3" workshop, happening in ICMS (Edinburgh, Scotland) April 13-17th 2026

The Newsletter Team

The GenHET Newsletter aims to bring together the GenHET community by providing a platform to share opportunities such as conferences and job openings, while raising awareness about gender and minority issues within High Energy Physics and beyond. By fostering reflection and dialogue, it seeks to promote positive changes within the scientific community. The newsletter is planned to be published roughly every four months.

This issue of the GenHET Newsletter has been produced and edited by Saskia Demulder, Camille Eloy, Alessandra Gnechchi and Valdo Tatitscheff. We welcome suggestions for articles, interviews or announcements at genhet.newsletter@gmail.com. Don't hesitate to get in touch if you would like to become an editor.